

products according to molecular processes comparable to those according to which DNA and/or RNA of the human cell react with regards to said toxic products,

controlling the operating conditions of the filter by operating in a substantially non-aqueous medium and with a basic pH, and

adjusting the mass of the active ingredient so that it is larger than or equal to 0.1% of the mass of the filter.

2. (Amended) The method according to claim 1, such that said active ingredient consists of molecules formed by one or more nitrogen-containing cycles or nitrogen-containing heterocycles; said active ingredient is a chain of said molecules, or said molecules bound in a common chemical arrangement to one fiber, or both.

A<sup>3</sup>  
3. (Amended) The method according to claim 2, such that the molecule of the active ingredient is selected from the group consisting of DNA, RNA and derivatives thereof.

4. (Amended) A filter for a tobacco product with a selective, direct chemical, anti-carcinogenic action, for filtering polycyclic aromatic hydrocarbons (PAH), notably benzo(a)pyrene (BaP), as well as nitrosamines, while preserving the nicotine level and taste aromas for the satisfaction and the pleasure of the smoker;

said filter including an active ingredient consisting of molecules formed by one or more nitrogen-containing cycles or nitrogen-containing heterocycles,

said active ingredient is- a chain of said molecules, or said molecules bound to a fiber in a common chemical arrangement, or both;

the mass of said nitrogen-containing cycles or heterocycles being at least equal to or larger than 0.1% of the total mass of the filter; and

said nitrogen-containing cycles or heterocycles operating in a substantially non-aqueous medium and with a basic pH.

5. (Amended) The filter according to claim 4, such that the molecules are formed as a polymer.

A<sup>3</sup>  
6. (Amended) The filter according to claim 4, such that the active ingredient exclusively consists of said molecules.

7. (Amended) The filter according to claim 4, such that the mass of said nitrogen-containing cycles or heterocycles is at least equal to or larger than 1% of the total mass of the filter.

8. (Amended) The filter according to claim 4, such that the moisture content of the filter lies between 5 and 10%.

9. (Amended) The filter according to claim 4, such that the pH of the filter is larger than 8.

10. (Amended) The filter according to claim 4, such that the molecule of the active ingredient is selected from the group consisting of DNA, RNA and derivatives thereof.

11. (Amended) The filter according to claim 4, such that at least one function is added to the molecule of the active ingredient, on at least one of the nitrogen-containing cycles or nitrogen-containing heterocycles, the function being selected from the group consisting of amine  $\text{NH}_2$ , ketone, aldehyde, methyl, alkene, alkyl, and aryl.

A<sup>3</sup>  
12. (Amended) The filter according to claim 4, such that one or more sugars is added to at least one molecule of the active ingredient.

Sub B<sup>1</sup> → ~~13. (Amended) The filter according to claim 4, such that one or more acid functions and at least a trivalent phosphorus atom are added to at least one molecule of the active ingredient.~~

14. (Amended) The filter according to any of claim 4, such that polymerization is performed at the nitrogen-containing cycles.

15. (Amended) The filter according to claim 4, such that the molecule of the active ingredient includes a halogen in a form of one or more atoms, molecules, radicals, or ions.

Sub B<sup>2</sup>

16. (Amended) The filter according to claim 4, such that the molecule of the active ingredient includes a sodium fluoride (NaF) salt medium.

17. (Amended) The filter according to claim 4, such that said fibers are partly halogenated, and/or are in a medium including atoms, molecules, radicals or ions of a halogen.

A<sup>3</sup>

18. (Amended) A method for manufacturing a filter including an active ingredient consisting of molecules formed by one or more nitrogen-containing cycles or nitrogen-containing heterocycles, said active ingredient being selected from the group consisting of a chain of said molecules and said molecules bound to a fiber in a common chemical arrangement; the mass of said nitrogen-containing cycles or heterocycles being at least equal to or larger than 0.1% of the total mass of the filter; said nitrogen-containing cycles or heterocycles operating in a substantially non-aqueous medium and with a basic pH, said method comprising the step of

extruding and/or rolling together said molecules and said fibers.

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Claim 19 is cancelled.

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A<sup>4</sup>

20. (Amended) The filter according to claim 4, such that said molecules and/or said fibers are incorporated in separate compartments.

A<sup>4</sup>  
Acid

21. (Amended) The filter according to claim 4, such that said molecules and/or said fibers exist in a gelatinous, liquid or gaseous physical state.

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Claims 22 and ~~23~~ are cancelled.

Please add ~~new~~ claims 24-28 as follows:

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24. (New) The method of claim 2, wherein the nitrogen-containing cycles or heterocycles are nitrogen-containing heteroaromatic cycles selected from the group consisting of pentacycles, hexacycles and combinations thereof.

25. (New) The method of claim 2, wherein the active ingredient is adenosine triphosphate (ATP), cyclic adenosine monophosphate (AMP), or adenylcyclase.

As 26. (New) The filter of claim 4, wherein the nitrogen-containing cycles or heterocycles are nitrogen-containing heteroaromatic cycles selected from the group consisting of pentacycles, hexacycles and combinations thereof.

27. (New) The filter of claim 4, wherein the fiber comprises cellulose acetate.

28. (New) The filter of claim 4, wherein the active ingredient is adenosine triphosphate (ATP), cyclic adenosine monophosphate (AMP), or adenylcyclase.

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